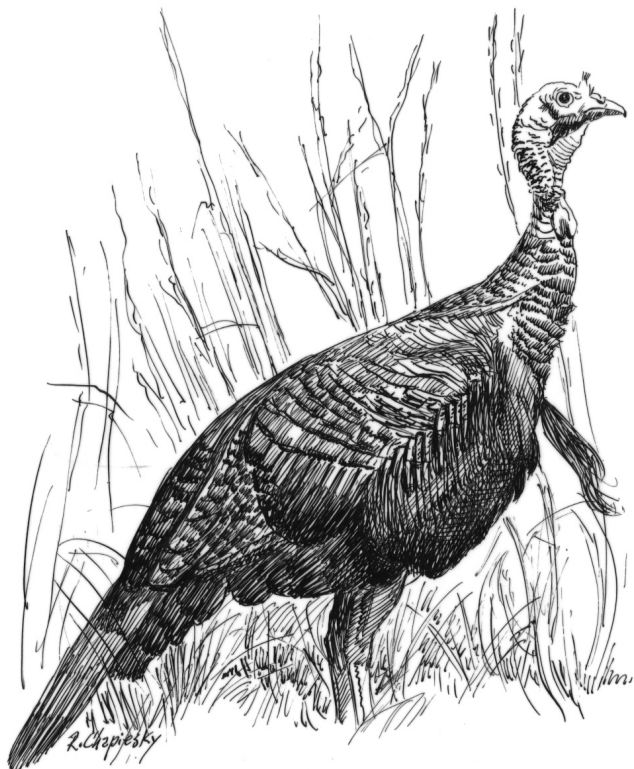


2007 SOUTH CAROLINA TURKEY HARVEST REPORT



SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES TURKEY RESEARCH & MANAGEMENT PROJECT



DNR

Submitted by

Charles Ruth; Project Supervisor

INTRODUCTION

Ranking only behind the white-tailed deer in popularity among hunters, the Eastern wild turkey is an important natural resource in South Carolina. The 2007 Turkey Hunter Survey represents the South Carolina Department of Natural Resources (DNR), Wildlife Section's ongoing commitment to conduct pertinent research related to the state's wild turkey population. The primary objectives of this survey research were to obtain valid estimates of; (1) the statewide spring gobbler harvest in 2007, (2) the harvest of gobblers in the constituent counties of the state, and (3) hunting effort related to turkeys. Information on hunter's opinions of the turkey resource and other aspects of turkey hunting are also presented.

Due to the importance of turkeys as a state resource, DNR believes that accurately assessing the harvest of turkeys, as well as hunter participation in turkey hunting, is key to the management of this species. Proposed changes in turkey-related laws and regulations should have foundations in biology, therefore, the population dynamics associated with annual hunting mortality cannot be ignored. Similarly, when issues arise that do not involve biological parameters, it is important to have information related to turkey hunter activities afield because they too form an important basis for managing wild turkeys.

Since the inception of the Statewide Turkey Restoration and Research Project (Turkey Project) the methods used to document the turkey harvest have changed. Historically, turkey harvest figures were developed using a system of mandatory turkey check stations across the state. This system yielded an actual count of harvested turkey and was, therefore, an absolute minimum harvest figure. Shortcomings in this system included deterioration of check station compliance, complaints from hunters regarding the inconvenience of check stations, and costs associated with the check station system. The requirement to check harvested turkeys in South Carolina was eliminated following the 2005 season. Prior to eliminating the check-in requirement, DNR conducted surveys in order to document the rate of noncompliance, as well as, to determine the relationship between harvest figures obtained from check stations and those obtained from surveys. As would be expected, harvest figures obtained from surveys are higher than those from check stations due to lack of compliance with the check-in requirement.

Survey Methodology

The 2007 Turkey Hunter Survey represented a random mail survey that involved a single mail-out. The questionnaire for the 2007 Turkey Hunter Survey was developed by Wildlife Section personnel (Figure 1). The mailing list database was constructed by randomly selecting 15,000 Big Game Permit holders that included 5 license types, the first 3 of which have a Big Game Permit included. The license types included: (1) Resident Sportsman's, (2) Resident Combination, (3) Resident Junior Sportsman=s, (4) Resident Big Game Permit, and (5) Non-resident Big Game Permit. The number of individuals associated with each license type was based on an attempted sampling rate of approximately 10 percent for licenses purchased through May of 2007. Since spring gobbler seasons statewide end on May 1 there was no need to sample individuals that were licensed thereafter.

Following the mail survey, a nonresponse bias test was conducted by Responsive Management of Harrisonburg, Virginia using a Computer Assisted Telephone Interview program (CATI). Results from the mail survey were corrected for nonresponse bias using data collected from the telephone survey.

Statistical analysis was conducted using Statistix 7 (Analytical Software, Tallahassee, FL).

Acknowledgments

Special thanks are due DNR Licensing personnel for their cooperation in building the licensee database and data entry associated with the completed surveys. Specifically, thanks go to Bryan Kyzer for his overall cooperation as Licensing Coordinator and Vanessa Calhoun for her outstanding data entry. Thanks to Jay Butfiloski, DNR Furbearer Project supervisor, for his considerable efforts in data entry form design.

RESULTS AND DISCUSSION

Turkey Harvest

During the 2007 spring season it is estimated that a total of 16,565 adult gobblers and 2,724 jakes were harvested for a statewide total of 19,289 turkeys (Table 1). This figure represents a 4.2 percent decrease in harvest from 2006 (20,125) and a 24.4 percent decrease from the record harvest established in 2002 (16,348 check station, 25,487 estimated by survey). The reduction in harvest seen since 2002 can likely be attributable to one primary factor, poor reproduction. Reproduction in wild turkeys has been poor four of the last five years (Figure 2) and the spring harvest following each year of low recruitment has been down (Figure 3). Unlike deer, wild turkeys are much more susceptible to significant fluctuations in reproduction and recruitment and these measures of production have simply not been good recently. Lack of success is typically associated with bad weather (cold and wet) during nesting and brood rearing season. Also, habitats are continually changing in South Carolina. Although timber management activities stimulated the growth in South Carolina's turkey population in the 1980s, considerable acreage is currently in even-aged pine stands that are greater than 10 years old, a situation that does not support turkeys as well.

Harvest Per Unit Area County Rankings

Comparisons can be made between turkey harvests from the various counties in South Carolina if a harvest per unit area is established. Harvest per unit area standardizes the harvest among counties regardless of the size of individual counties. One measure of harvest rate is the number of turkeys taken per square mile ($640\text{ac.} = 1\text{ mile}^2$). When considering the estimated turkey habitat that is available in South Carolina, the turkey harvest rate in 2007 was 0.9 gobblers per square mile statewide (Table 2). Although the turkey harvest has been down the last few years, this harvest rate should be considered good and is similar to other Southeastern states. The top 5 counties for harvest per unit area were Abbeville ($1.8\text{ turkeys/mile}^2$), Union ($1.6\text{ turkeys/mile}^2$), Fairfield ($1.6\text{ turkeys/mile}^2$), York ($1.5\text{ turkeys/mile}^2$), and Hampton ($1.4\text{ turkeys/mile}^2$) (Table 2).

Turkey Harvest Rankings by County

Total turkey harvest is not comparable among counties because there is no standard unit of comparison, i.e. counties vary in size and are, therefore, not directly comparable. However, some readers may be interested in this type of ranking. The top 5 counties during 2007 were Fairfield, Orangeburg, Berkeley, Williamsburg, and Colleton (Table 3).

Turkey Harvest by Week of Season

Gobbling by male wild turkeys occurs primarily in the spring and is for the purpose of attracting hens for mating purposes. Therefore, spring turkey hunting is characterized by hunters attempting to locate and call gobbling male turkeys using emulated hens calls. With respect to both biology and effective hunting, the timing of the spring gobbler season should take into account three primary factors; peak breeding, peak gobbling, and peak incubation. Considering these factors, seasons can be set to afford hunters the best opportunity to hunt during the best time (i.e. peak gobbling) without inhibiting reproductive success.

South Carolina currently has two spring turkey season frameworks. Throughout most of the state (Game Zones 1, 2, 3, 4, and 5) the season is April 1-May 1. This season is based on a recommendation from DNR following gobbling and nesting studies that were conducted in the 1970's. The other season framework is March 15-May 1 and is only in effect in Game Zone 6 (lower coastal plain). This season is socio-politically based.

If seasons are set appropriately, the greatest proportion of turkeys should be harvested during the first week of the season because hens should be nesting resulting in gobblers that are naïve and most responsive to hunter's calls. Harvest by week of season demonstrates that the timing of the April 1-May 1 season affords higher turkey harvests as most turkeys are harvested following the April 1 opening date (Figure 4). When broken-out by specific season framework the results are similar. In areas where the season begins March 15, only 26 percent of the total harvest is accounted for during the first week of the season (Figure 5). This is likely due to the fact that late March is the time of peak breeding and males gobble less because "they are all henned up". On the other hand, 45 percent of the harvest occurs during the first week of the season in areas where the season begins April 1 (Figure 6). This is due to the fact that by the

first week in April, a significant number of hens have left the gobblers and begun continuous incubation. This lack of hens stimulates peak gobbling resulting in hunters being able to locate and call responsive birds. Finally, there is actually a higher percentage of turkeys harvested in the first week of the season in areas where the season opens April 1 (45%) than there is during the first two weeks of the season in areas where the season opens March 15 (43%).

Number of Turkey Hunters

Even though all individuals receiving a survey were licensed to hunt turkeys, only 25.2 percent actually hunted turkeys. Based on this figure, approximately 42,262 licensees hunted turkeys in South Carolina in 2007. This figure is comparable to the number of turkey tags that were issued. Counties with the highest estimates for individual hunters include Fairfield, Chester, Orangeburg, Union, and Williamsburg (Table 4).

Hunting Success

For determination of hunting success only those individuals that actually hunted turkeys were included in the analysis and similarly, success was defined as harvesting at least one turkey. Overall hunting success in 2007 was 32.6 percent. Unlike deer hunting, which typically has high success, turkey hunting can be an inherently unsuccessful endeavor, relatively speaking. However, success rates in South Carolina are similar and in many cases, better than in other states. As would be expected, the majority of successful hunters take one gobbler (Figure 7). However, the percentage of successful hunters who take two birds is nearly as high. This indicates that successful hunters had nearly the same chance of taking two birds as they did one bird.

The statewide bag limit in South Carolina is five gobblers. Obviously, most successful hunters harvest only one or two birds. However, it is interesting to note the relative contribution to the total harvest of turkeys by the few hunters that harvest multiple birds. Ironically, the percentage of hunters taking more than 3 birds is only 3.3%, however, this small percentage of hunters harvested 29% of the total birds taken in the state (Figure 8).

Hunter Effort

For the purposes of this survey hunter effort was measured in days with one day being defined as any portion of the day spent afield. Turkey hunters averaged approximately 5.7 days afield during the 2007 season (Table 4). Successful hunters averaged significantly more days afield (7.0 days) than unsuccessful hunters (4.5 days). Extrapolating to the entire population of turkey hunters yields a figure of 238,961 total days of spring gobbler hunting. The number of days devoted to turkey hunting in South Carolina is significant and points not only to the availability and popularity of turkeys as a game species, but to the obvious economic benefits related to this important natural resource. The top 5 South Carolina counties for overall days of turkey hunting during 2007 were Fairfield, Colleton, Orangeburg, Chester, and Union counties (Table 4).

Hunter Opinion Regarding Turkey Numbers

The 2007 Turkey Hunter Survey asked participants to compare the number of turkeys in the area they hunt most often with the number of turkeys in past years. Participants were given 3 choices; increasing, about the same, or decreasing. About half (46.7%) of hunters indicated that the number of turkeys in the area they hunted most often was about the same as in past years. Significantly more hunters (35.3%) believed that the turkey population was decreasing than increasing (17.9%). On a scale of 1 to 3 with 1 being increasing, 2 being the same, and 3 being decreasing, the overall mean rating of 2.35 suggests that hunters viewed the turkey population as decreasing. The opinion among hunters that the turkey population has decreased in recent years is consistent with recent harvest trends and reproductive data.

Calling or Guiding for Other Hunters

Unlike deer hunting, which is primarily an individual activity, turkey hunting often involves more than one hunter working together to locate and call a gobbler. Additionally, many experienced turkey hunters get more pleasure from assisting less experienced hunters in bagging a bird than they do from harvesting a gobbler themselves. The 2007 Turkey Hunter survey asked participants if they called or guided other hunters during the spring gobbler season.

Approximately 30 percent of turkey hunters indicated that they called or guided for other hunters during the 2007 season. This reasonably high percentage supports the contention that turkey hunting is somewhat social in nature. Of those hunters that indicated that they called or guided for other hunters, approximately half indicated that the other hunter(s) had harvested one or more birds.

Profile of South Carolina Turkey Hunters

As is the case with deer hunters in South Carolina, the majority of turkey hunters are middle aged ($\bar{x} = 44$ years) and male (96%). Approximately 4 percent of turkey hunters are females with an average age of 42 years.

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Table 1. Estimated statewide turkey harvest in South Carolina in 2007.

| County | Acres* | Square | Gobbler | Jake | Total | Percent | Harvest Rates | |
|--------------|-------------------|---------------|---------------|--------------|---------------|-------------|---------------|-------------------------|
| | | Miles | Harvest | Harvest | Harvest | Jakes | Ac/Turkey | Turkey/Mi. ² |
| Abbeville | 223,113 | 349 | 586 | 50 | 636 | 7.9 | 350.6 | 1.8 |
| Aiken | 500,546 | 782 | 388 | 84 | 471 | 17.7 | 1062.2 | 0.6 |
| Allendale | 216,455 | 338 | 407 | 38 | 445 | 8.5 | 486.8 | 1.3 |
| Anderson | 219,068 | 342 | 326 | 33 | 359 | 9.3 | 610.1 | 1.0 |
| Bamberg | 196,573 | 307 | 287 | 117 | 404 | 29.0 | 486.7 | 1.3 |
| Barnwell | 281,764 | 440 | 407 | 17 | 423 | 3.9 | 665.3 | 1.0 |
| Beaufort | 147,441 | 230 | 52 | 3 | 55 | 6.1 | 2679.0 | 0.2 |
| Berkeley | 567,530 | 887 | 760 | 117 | 877 | 13.3 | 647.2 | 1.0 |
| Calhoun | 190,584 | 298 | 239 | 33 | 273 | 12.3 | 698.9 | 0.9 |
| Charleston | 288,732 | 451 | 181 | 33 | 214 | 15.6 | 1347.0 | 0.5 |
| Cherokee | 156,664 | 245 | 155 | 33 | 188 | 17.7 | 831.2 | 0.8 |
| Chester | 300,589 | 470 | 543 | 117 | 660 | 17.7 | 455.6 | 1.4 |
| Chesterfield | 372,478 | 582 | 258 | 50 | 309 | 16.2 | 1207.2 | 0.5 |
| Clarendon | 298,087 | 466 | 227 | 33 | 261 | 12.8 | 1143.9 | 0.6 |
| Colleton | 502,666 | 785 | 694 | 97 | 791 | 12.3 | 635.6 | 1.0 |
| Darlington | 286,228 | 447 | 155 | 17 | 172 | 9.7 | 1666.2 | 0.4 |
| Dillon | 214,069 | 334 | 147 | 33 | 181 | 18.4 | 1185.4 | 0.5 |
| Dorchester | 302,717 | 473 | 181 | 17 | 198 | 8.5 | 1531.9 | 0.4 |
| Edgefield | 246,543 | 385 | 362 | 67 | 429 | 15.6 | 575.0 | 1.1 |
| Fairfield | 384,607 | 601 | 879 | 83 | 962 | 8.7 | 399.7 | 1.6 |
| Florence | 397,888 | 622 | 336 | 50 | 386 | 13.0 | 1030.5 | 0.6 |
| Georgetown | 399,638 | 624 | 323 | 33 | 356 | 9.4 | 1121.1 | 0.6 |
| Greenville | 294,257 | 460 | 179 | 17 | 196 | 8.5 | 1499.9 | 0.4 |
| Greenwood | 204,400 | 319 | 233 | 85 | 318 | 26.8 | 643.1 | 1.0 |
| Hampton | 324,840 | 508 | 698 | 17 | 715 | 2.3 | 454.6 | 1.4 |
| Horry | 533,336 | 833 | 331 | 33 | 364 | 9.2 | 1464.2 | 0.4 |
| Jasper | 309,889 | 484 | 388 | 84 | 471 | 17.7 | 657.7 | 1.0 |
| Kershaw | 360,485 | 563 | 129 | 80 | 209 | 38.3 | 1721.0 | 0.4 |
| Lancaster | 266,382 | 416 | 388 | 120 | 508 | 23.7 | 524.4 | 1.2 |
| Laurens | 317,916 | 497 | 388 | 67 | 455 | 14.7 | 699.5 | 0.9 |
| Lee | 220,106 | 344 | 225 | 50 | 275 | 18.2 | 800.5 | 0.8 |
| Lexington | 280,742 | 439 | 60 | 9 | 69 | 12.8 | 4093.8 | 0.2 |
| McCormick | 212,021 | 331 | 388 | 74 | 461 | 15.9 | 459.7 | 1.4 |
| Marion | 216,907 | 339 | 258 | 17 | 275 | 6.1 | 788.3 | 0.8 |
| Marlboro | 281,271 | 439 | 155 | 17 | 172 | 9.7 | 1637.5 | 0.4 |
| Newberry | 317,761 | 497 | 336 | 180 | 516 | 34.9 | 615.4 | 1.0 |
| Oconee | 284,348 | 444 | 239 | 50 | 289 | 17.3 | 982.5 | 0.7 |
| Orangeburg | 504,516 | 788 | 853 | 33 | 886 | 3.8 | 569.2 | 1.1 |
| Pickens | 219,926 | 344 | 362 | 33 | 395 | 8.5 | 556.3 | 1.2 |
| Richland | 340,121 | 531 | 233 | 17 | 249 | 6.7 | 1364.5 | 0.5 |
| Saluda | 192,173 | 300 | 279 | 33 | 313 | 10.7 | 614.8 | 1.0 |
| Spartanburg | 265,939 | 416 | 310 | 134 | 444 | 30.1 | 599.2 | 1.1 |
| Sumter | 338,968 | 530 | 414 | 84 | 497 | 16.8 | 681.9 | 0.9 |
| Union | 258,111 | 403 | 569 | 84 | 652 | 12.8 | 395.8 | 1.6 |
| Williamsburg | 513,851 | 803 | 768 | 84 | 851 | 9.8 | 603.7 | 1.1 |
| York | 276,650 | 432 | 491 | 167 | 658 | 25.4 | 420.4 | 1.5 |
| Total | 14,028,896 | 21,920 | 16,565 | 2,724 | 19,289 | 14.1 | 727.3 | 0.9 |

95% Conf. Interval for harvest

(+) 3,114

* Acreage shown represents the acreage of forested land and acreage of row crops considered to be significant turkey habitat within each county.

Table 2. County rankings based on turkeys harvested per unit area in South Carolina in 2007.

| County | Acres | Square Miles | Gobbler Harvest | Jake Harvest | Total Harvest | Percent Jakes | Harvest Rates | |
|--------------|-------------------|---------------|-----------------|--------------|---------------|---------------|---------------|-------------------------|
| | | | | | | | Ac/Turkey | Turkey/Mi. ² |
| Abbeville | 223,113 | 349 | 586 | 50 | 636 | 7.9 | 350.6 | 1.8 |
| Union | 258,111 | 403 | 569 | 84 | 652 | 12.8 | 395.8 | 1.6 |
| Fairfield | 384,607 | 601 | 879 | 83 | 962 | 8.7 | 399.7 | 1.6 |
| York | 276,650 | 432 | 491 | 167 | 658 | 25.4 | 420.4 | 1.5 |
| Hampton | 324,840 | 508 | 698 | 17 | 715 | 2.3 | 454.6 | 1.4 |
| Chester | 300,589 | 470 | 543 | 117 | 660 | 17.7 | 455.6 | 1.4 |
| McCormick | 212,021 | 331 | 388 | 74 | 461 | 15.9 | 459.7 | 1.4 |
| Bamberg | 196,573 | 307 | 287 | 117 | 404 | 29.0 | 486.7 | 1.3 |
| Allendale | 216,455 | 338 | 407 | 38 | 445 | 8.5 | 486.8 | 1.3 |
| Lancaster | 266,382 | 416 | 388 | 120 | 508 | 23.7 | 524.4 | 1.2 |
| Pickens | 219,926 | 344 | 362 | 33 | 395 | 8.5 | 556.3 | 1.2 |
| Orangeburg | 504,516 | 788 | 853 | 33 | 886 | 3.8 | 569.2 | 1.1 |
| Edgefield | 246,543 | 385 | 362 | 67 | 429 | 15.6 | 575.0 | 1.1 |
| Spartanburg | 265,939 | 416 | 310 | 134 | 444 | 30.1 | 599.2 | 1.1 |
| Williamsburg | 513,851 | 803 | 768 | 84 | 851 | 9.8 | 603.7 | 1.1 |
| Anderson | 219,068 | 342 | 326 | 33 | 359 | 9.3 | 610.1 | 1.0 |
| Saluda | 192,173 | 300 | 279 | 33 | 313 | 10.7 | 614.8 | 1.0 |
| Newberry | 317,761 | 497 | 336 | 180 | 516 | 34.9 | 615.4 | 1.0 |
| Colleton | 502,666 | 785 | 694 | 97 | 791 | 12.3 | 635.6 | 1.0 |
| Greenwood | 204,400 | 319 | 233 | 85 | 318 | 26.8 | 643.1 | 1.0 |
| Berkeley | 567,530 | 887 | 760 | 117 | 877 | 13.3 | 647.2 | 1.0 |
| Jasper | 309,889 | 484 | 388 | 84 | 471 | 17.7 | 657.7 | 1.0 |
| Barnwell | 281,764 | 440 | 407 | 17 | 423 | 3.9 | 665.3 | 1.0 |
| Sumter | 338,968 | 530 | 414 | 84 | 497 | 16.8 | 681.9 | 0.9 |
| Calhoun | 190,584 | 298 | 239 | 33 | 273 | 12.3 | 698.9 | 0.9 |
| Laurens | 317,916 | 497 | 388 | 67 | 455 | 14.7 | 699.5 | 0.9 |
| Marion | 216,907 | 339 | 258 | 17 | 275 | 6.1 | 788.3 | 0.8 |
| Lee | 220,106 | 344 | 225 | 50 | 275 | 18.2 | 800.5 | 0.8 |
| Cherokee | 156,664 | 245 | 155 | 33 | 188 | 17.7 | 831.2 | 0.8 |
| Oconee | 284,348 | 444 | 239 | 50 | 289 | 17.3 | 982.5 | 0.7 |
| Florence | 397,888 | 622 | 336 | 50 | 386 | 13.0 | 1030.5 | 0.6 |
| Aiken | 500,546 | 782 | 388 | 84 | 471 | 17.7 | 1062.2 | 0.6 |
| Georgetown | 399,638 | 624 | 323 | 33 | 356 | 9.4 | 1121.1 | 0.6 |
| Clarendon | 298,087 | 466 | 227 | 33 | 261 | 12.8 | 1143.9 | 0.6 |
| Dillon | 214,069 | 334 | 147 | 33 | 181 | 18.4 | 1185.4 | 0.5 |
| Chesterfield | 372,478 | 582 | 258 | 50 | 309 | 16.2 | 1207.2 | 0.5 |
| Charleston | 288,732 | 451 | 181 | 33 | 214 | 15.6 | 1347.0 | 0.5 |
| Richland | 340,121 | 531 | 233 | 17 | 249 | 6.7 | 1364.5 | 0.5 |
| Horry | 533,336 | 833 | 331 | 33 | 364 | 9.2 | 1464.2 | 0.4 |
| Greenville | 294,257 | 460 | 179 | 17 | 196 | 8.5 | 1499.9 | 0.4 |
| Dorchester | 302,717 | 473 | 181 | 17 | 198 | 8.5 | 1531.9 | 0.4 |
| Marlboro | 281,271 | 439 | 155 | 17 | 172 | 9.7 | 1637.5 | 0.4 |
| Darlington | 286,228 | 447 | 155 | 17 | 172 | 9.7 | 1666.2 | 0.4 |
| Kershaw | 360,485 | 563 | 129 | 80 | 209 | 38.3 | 1721.0 | 0.4 |
| Beaufort | 147,441 | 230 | 52 | 3 | 55 | 6.1 | 2679.0 | 0.2 |
| Lexington | 280,742 | 439 | 60 | 9 | 69 | 12.8 | 4093.8 | 0.2 |
| Total | 14,028,896 | 21,920 | 16,565 | 2,724 | 19,289 | 14.1 | 727.3 | 0.9 |

Table 3. County rankings based on total turkeys harvested in South Carolina in 2007.

| County | Acres | Square Miles | Gobbler Harvest | Jake Harvest | Total Harvest | Percent Jakes | Harvest | Rates |
|--------------|-------------------|---------------|-----------------|--------------|---------------|---------------|--------------|-------------------------|
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| Fairfield | 384,607 | 601 | 879 | 83 | 962 | 8.7 | 399.7 | 1.6 |
| Orangeburg | 504,516 | 788 | 853 | 33 | 886 | 3.8 | 569.2 | 1.1 |
| Berkeley | 567,530 | 887 | 760 | 117 | 877 | 13.3 | 647.2 | 1.0 |
| Williamsburg | 513,851 | 803 | 768 | 84 | 851 | 9.8 | 603.7 | 1.1 |
| Colleton | 502,666 | 785 | 694 | 97 | 791 | 12.3 | 635.6 | 1.0 |
| Hampton | 324,840 | 508 | 698 | 17 | 715 | 2.3 | 454.6 | 1.4 |
| Chester | 300,589 | 470 | 543 | 117 | 660 | 17.7 | 455.6 | 1.4 |
| York | 276,650 | 432 | 491 | 167 | 658 | 25.4 | 420.4 | 1.5 |
| Union | 258,111 | 403 | 569 | 84 | 652 | 12.8 | 395.8 | 1.6 |
| Abbeville | 223,113 | 349 | 586 | 50 | 636 | 7.9 | 350.6 | 1.8 |
| Newberry | 317,761 | 497 | 336 | 180 | 516 | 34.9 | 615.4 | 1.0 |
| Lancaster | 266,382 | 416 | 388 | 120 | 508 | 23.7 | 524.4 | 1.2 |
| Sumter | 338,968 | 530 | 414 | 84 | 497 | 16.8 | 681.9 | 0.9 |
| Aiken | 500,546 | 782 | 388 | 84 | 471 | 17.7 | 1062.2 | 0.6 |
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| Dorchester | 302,717 | 473 | 181 | 17 | 198 | 8.5 | 1531.9 | 0.4 |
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| Cherokee | 156,664 | 245 | 155 | 33 | 188 | 17.7 | 831.2 | 0.8 |
| Dillon | 214,069 | 334 | 147 | 33 | 181 | 18.4 | 1185.4 | 0.5 |
| Darlington | 286,228 | 447 | 155 | 17 | 172 | 9.7 | 1666.2 | 0.4 |
| Marlboro | 281,271 | 439 | 155 | 17 | 172 | 9.7 | 1637.5 | 0.4 |
| Lexington | 280,742 | 439 | 60 | 9 | 69 | 12.8 | 4093.8 | 0.2 |
| Beaufort | 147,441 | 230 | 52 | 3 | 55 | 6.1 | 2679.0 | 0.2 |
| Total | 14,028,896 | 21,920 | 16,565 | 2,724 | 19,289 | 14.1 | 727.3 | 0.9 |

Table 4. Estimated number of turkey hunters, average days hunted, and total hunting effort by county in South Carolina in 2007.

| County | Total Harvest | Number Hunters | Avg. Days Hunted | Total Man/Days |
|--------------|---------------|----------------|------------------|----------------|
| Abbeville | 636 | 1,289 | 5.9 | 7,592 |
| Aiken | 471 | 605 | 7.9 | 4,739 |
| Allendale | 445 | 1,184 | 5.8 | 6,859 |
| Anderson | 359 | 1,105 | 4.4 | 4,843 |
| Bamberg | 404 | 974 | 6.3 | 6,100 |
| Barnwell | 423 | 895 | 5.4 | 4,791 |
| Beaufort | 55 | 105 | 3.8 | 393 |
| Berkeley | 877 | 1,105 | 6.0 | 6,545 |
| Calhoun | 273 | 526 | 6.9 | 3,613 |
| Charleston | 214 | 579 | 3.7 | 2,147 |
| Cherokee | 188 | 553 | 3.6 | 1,963 |
| Chester | 660 | 1,737 | 5.5 | 9,529 |
| Chesterfield | 309 | 868 | 6.1 | 5,236 |
| Clarendon | 261 | 500 | 6.2 | 3,089 |
| Colleton | 791 | 1,526 | 7.0 | 10,629 |
| Darlington | 172 | 316 | 6.2 | 1,937 |
| Dillon | 181 | 500 | 6.9 | 3,456 |
| Dorchester | 198 | 605 | 5.3 | 3,168 |
| Edgefield | 429 | 1,079 | 6.1 | 6,545 |
| Fairfield | 962 | 2,237 | 7.2 | 15,917 |
| Florence | 386 | 737 | 5.9 | 4,320 |
| Georgetown | 356 | 711 | 6.4 | 4,503 |
| Greenville | 196 | 395 | 4.5 | 1,780 |
| Greenwood | 318 | 895 | 5.2 | 4,608 |
| Hampton | 715 | 1,289 | 5.2 | 6,728 |
| Horry | 364 | 842 | 5.7 | 4,765 |
| Jasper | 471 | 763 | 7.9 | 5,969 |
| Kershaw | 209 | 842 | 4.6 | 3,848 |
| Lancaster | 508 | 947 | 6.3 | 5,969 |
| Laurens | 455 | 1,263 | 4.6 | 5,838 |
| Lee | 275 | 763 | 5.7 | 4,320 |
| Lexington | 69 | 132 | 3.0 | 393 |
| McCormick | 461 | 1,105 | 4.8 | 5,262 |
| Marion | 275 | 658 | 4.4 | 2,854 |
| Marlboro | 172 | 553 | 4.3 | 2,382 |
| Newberry | 516 | 1,421 | 4.9 | 6,964 |
| Oconee | 289 | 526 | 5.7 | 3,005 |
| Orangeburg | 886 | 1,710 | 6.2 | 10,524 |
| Pickens | 395 | 789 | 5.3 | 4,136 |
| Richland | 249 | 974 | 5.4 | 5,184 |
| Saluda | 313 | 947 | 6.8 | 6,414 |
| Spartanburg | 444 | 763 | 4.9 | 3,718 |
| Sumter | 497 | 895 | 4.9 | 4,398 |
| Union | 652 | 1,447 | 6.4 | 9,189 |
| Williamsburg | 851 | 1,421 | 4.4 | 6,205 |
| York | 658 | 1,184 | 5.6 | 6,597 |
| Total | 19,289 | 42,262 | 5.7 | 238,961 |

May, 2007

Dear Sportsman:

Eastern wild turkeys are one of the most important game species in South Carolina. Therefore, it is important that this species be monitored for population status and harvesting activities. Wildlife resource managers require current and accurate information about wild turkey harvests to aid in successfully managing this important natural resource and to optimize future hunting potential. To obtain this needed data, the Department of Natural Resources (DNR) is conducting a survey of licensed hunters who may have hunted during spring 2007.

You are one of a group of randomly selected hunters asked to participate in this survey. To draw accurate conclusions it is very important that you complete the survey and return it. Please take time to read each question. Even if you did not hunt wild turkeys this spring please indicate this by answering the appropriate questions and moving on to the next set of questions.

Please note that complete confidentiality will be given to you. Each survey form is numbered, but only so we can avoid costly repeat mailings to those survey participants who have not returned their survey.

The purpose of the survey is to estimate the wild turkey harvest in South Carolina, not to determine whether game laws are observed. By accurately answering the survey questions you will enable DNR biologists to better manage the Eastern wild turkey resource for you and other citizens of the state. Therefore, it is very important that you take a few minutes to complete this survey and mail it. Return postage is prepaid.

Thank you for your assistance.



Charles Ruth
Wildlife Biologist
Deer/Turkey Project Supervisor

**PLEASE MAIL YOUR SURVEY AFTER SEPARATING THIS HALF
FROM THE SIDE ON WHICH YOUR ANSWERS HAVE BEEN ENTERED.
NO POSTAGE IS NECESSARY.**

If you have questions regarding this survey, please call 803-734-3886 or write 2007 Turkey Hunter Survey, SCDNR, P.O. Box 167, Columbia, SC 29202.

The South Carolina Department of Natural Resources prohibits discrimination on the basis of race, color, sex, national origin, disability, religion or age. Direct all inquiries to the Office of Human Resources, PO Box 167, Columbia, SC 29202

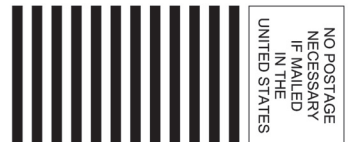
07WL5560



**TURKEY HUNTER SURVEY
SC DEPARTMENT OF NATURAL RESOURCES
PO BOX 167
COLUMBIA SC 29202-9976**

POSTAGE WILL BE PAID BY ADDRESSEE

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO 1371 COLUMBIA SC



2007 South Carolina Turkey Hunter Survey

- Did you turkey hunt in SC this past season (2007)? **1. Yes** **2. No**
If you answered **No** to this question please go to question # 8.
- Did you harvest any turkeys in SC this past season? **1. Yes** **2. No**
- Even if you did not harvest a turkey, please record the SC counties you turkey hunted and the number of days hunted in each county this past season (2007). If you harvested turkeys please record the number of adult gobblers and jakes taken in each county. A day of hunting is defined as any portion of the day spent afield. Please do not give ranges (i.e. 5-10), rather provide absolute numbers (i.e. 5). Provide information only for yourself - not friends, relatives, or other people you may have called or guided for. See the diagram below if you are unsure how to determine an adult gobbler or "longbeard" from a juvenile gobbler or "jake".

| Counties You Turkey Hunted | # Days Hunted | Number Turkeys Harvested |
|----------------------------|---------------|----------------------------------|
| 1 | | Adult gobblers _____ Jakes _____ |
| 2 | | Adult gobblers _____ Jakes _____ |
| 3 | | Adult gobblers _____ Jakes _____ |
| 4 | | Adult gobblers _____ Jakes _____ |
| 5 | | Adult gobblers _____ Jakes _____ |

If you did not harvest any turkeys this past season please go to question 5.

- If you harvested turkeys this past season, please indicate as best you can the number of turkeys killed by week of season.

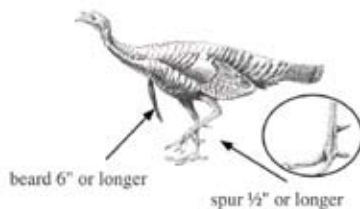
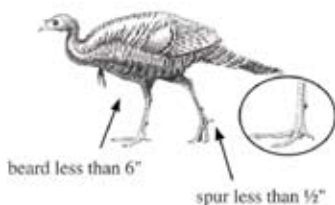
| Week of Season | # Turkeys Harvested | Week of Season | # Turkeys Harvested |
|----------------|---------------------|----------------|---------------------|
| 1 March 15-22 | | 4 April 8-14 | |
| 2 March 23-31 | | 5 April 15-21 | |
| 3 April 1-7 | | 6 April 22-30 | |

- Did you call or guide for other hunters this season? **1. Yes** **2. No**
If you answered **No** to this question, please go to question #7.
- How many turkeys did the hunters you guided or called for kill this season? _____
- Compared to past years, how would you describe the number of turkeys in the area that you hunted most often this season? **Circle one**
1. Increasing 2. About the same 3. Decreasing
- What is your sex? **1. Male** **2. Female**
- What is your age? _____ years
- Are you a resident of SC? **1. Yes** **2. No**
- If yes, which county _____

Separate and return this portion of the survey. Postage is prepaid. Please do not staple this form.

Juvenile "Jake"

Adult "Gobbler"



**IMPORTANT
TURKEY
RESEARCH**



TURKEY HUNTER SURVEY
SCDNR
PO BOX 167
COLUMBIA SC 29202-0167

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Figure 2. Summer wild turkey recruitment ratio in South Carolina 1982-2006. Note poor recruitment ratio 4 out of the last 5 years. Recruitment ratio is a measure of young entering the population based on the number of hens in the population.

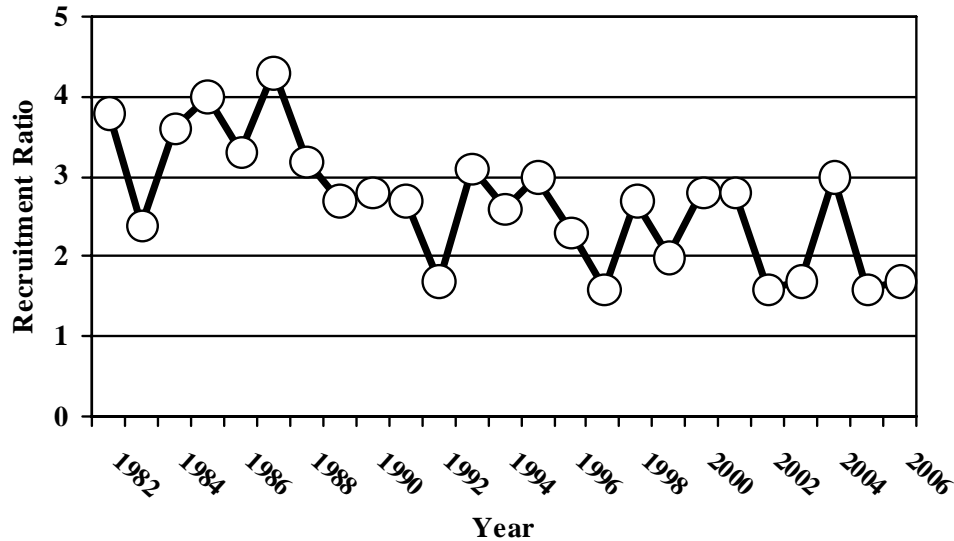


Figure 3. Spring wild turkey harvest in South Carolina 1982-2007. Note declines in harvest following years of poor recruitment that have occurred since record harvest in 2002.

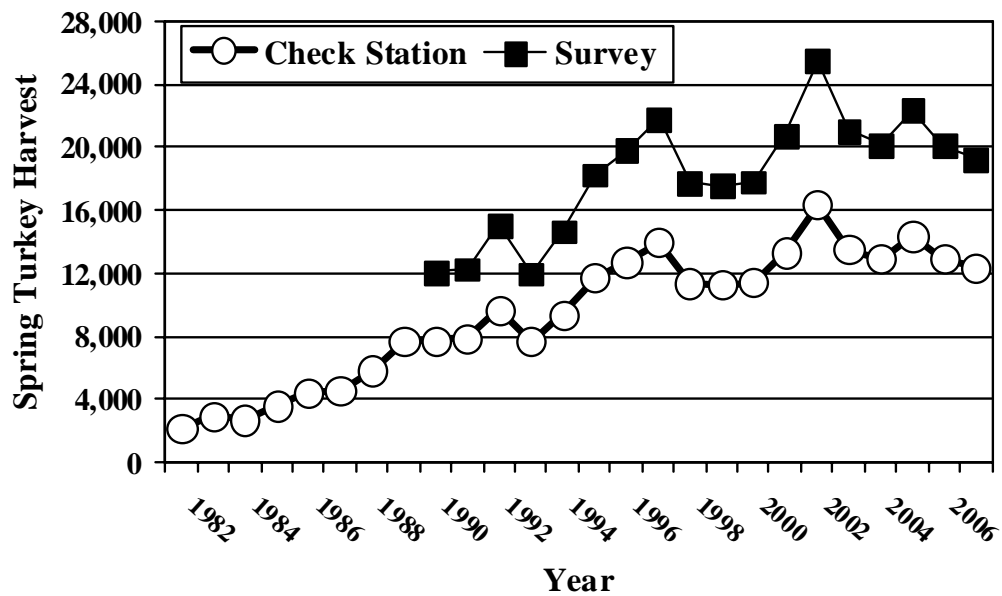


Figure 4. Percentage of gobblers harvested by week of season in South Carolina in 2007.

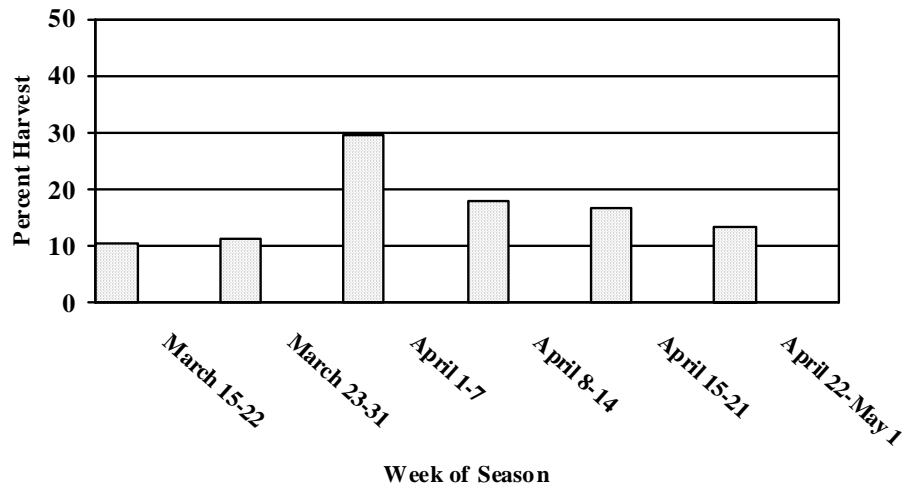


Figure 5. Percentage of gobblers harvested by week in areas with March 15-May 1 season.

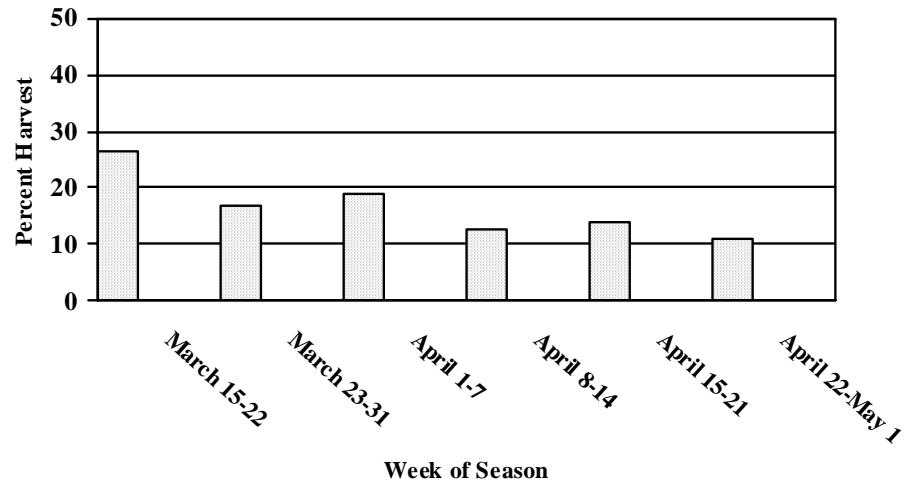


Figure 6. Percentage of gobblers harvested by week in areas with April 1-May 1 season.

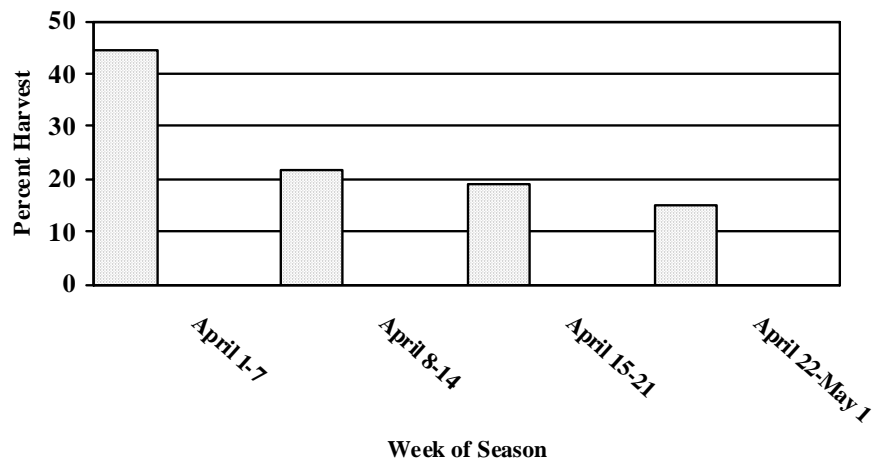


Figure 7. Hunter success during the spring turkey season in South Carolina in 2007. Overall success was 32.6 percent at harvesting at least one gobbler.

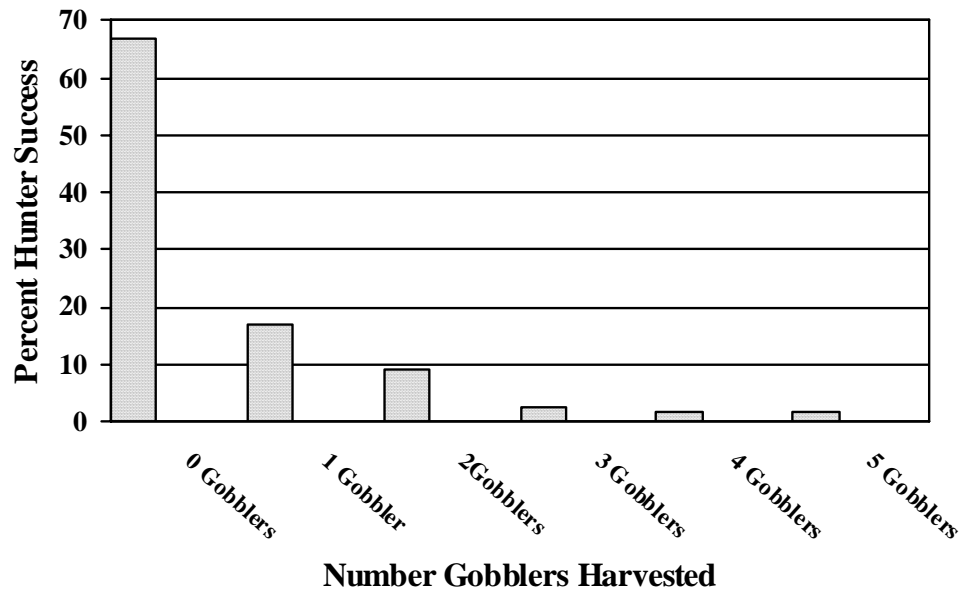


Figure 8. Relative contribution to the total turkey harvest by hunters taking multiple birds in South Carolina in 2007. Hunters taking more than 3 birds account for 29% of total harvest.

